COMPUTING RESEARCH: ADDRESSING NATIONAL PRIORITIES AND SOCIETAL NEEDS

May 9-10, 2016
THE COMPUTING COMMUNITY CONSORTIUM

• Established in 2006 as a standing committee of the Computing Research Association

• Funded by NSF under a Cooperative Agreement
  – Second Award began in 2012, Site Visit completed in 2014

• Mission to facilitate development and communication of a bold, multi-themed vision for computing research

• Led by a broad-based multi-institution Council

• Staffed by CRA
The mission of Computing Research Association's Computing Community Consortium (CCC) is to catalyze the computing research community and enable the pursuit of innovative, high-impact research.

**Promote Audacious Thinking:**
- Community Initiated Visioning Workshops
- Blue Sky Ideas tracks at conferences

**Inform Science Policy:**
- Outputs of visioning activities
- Task Forces – Health IT, Data Analytics

**Communicate to the Community:**
- CCC Blog - [http://cccblog.org/](http://cccblog.org/)
- Great Innovative Ideas
- White Papers

**Promote Leadership and Service:**
- Leadership in Science Policy Institute
- Postdoc Best Practices
THE CCC COUNCIL

Terms ending June 2018
• Liz Bradley, Univ. Colorado Boulder
• Cynthia Dwork, Microsoft Research
• Kevin Fu, Univ. Michigan
• Daniel P. Lopresti, Lehigh University
• Shwetak Patel, Univ. Washington
• Katherine Yelick, UC Berkeley

Terms ending June 2017
• Lorenzo Alvisi, UT Austin
• Vasant Honavar, Penn State
• Jennifer Rexford, Princeton
• Debra Richardson, UC Irvine
• Klara Nahrstedt, UIUC
• Ben Zorn, Microsoft Research

Terms ending June 2016
• Mark Hill, Univ. Wisconsin Madison
• Randy Bryant, CMU
• Limor Fix, formerly Intel
• Tal Rabin, IBM
• Daniela Rus, MIT
• Ross Whitaker, Univ. Utah
CATALYZING: VISIONING ACTIVITIES

• Over 30 Workshops to date
• More than 2,500 participants
A PERSPECTIVE FROM THE 2015 REVIEW OF THE NITRD PROGRAM

Health

Smart

infrastructure

Robo4cs

Sci4nc4

Discovery

Transporta4on

Security

Networking

Societal	Compu4ng

Manufacturing

Robotics

Smart

infrastructure

People

Physical

World

Data

www.whitehouse.gov/blog/2015/08/07/pcast-assesses-federal-information-technology-rd
• The Impact of Computing in Our Physical World:
  – The implications of computing-powered advances for transportation, agriculture, smart cities, and disaster response.

• Computing Enhancing Our Lives:
  – The potential of computing to shape our education, our work life, and enhance our independence and quality of life as we age.

• Controlling Our Data:
  – New types of systems and cryptographic techniques to support control, privacy, security, and fairness in a data-rich world.

• Partnerships for the Future:
  – New ideas for combining the capabilities and resources of the public and private sectors to ensure our investments in computing research have the highest possible value for society.
AGENDA DAY 1

• 8:30AM Welcome and Introductions
• 8:45AM Keynote- Carla Gomes
• 9:30AM Short Talk and Panel Discussion- Smart Cities
• 10:30AM BREAK
• 11:00AM Short Talk and Panel Discussion- Food-Energy-Water
• 12:00PM LUNCH (talk by Ed Lazowska)
• 1:15PM Computing Enhancing Our Lives- Opening Remarks
• 1:30PM Short Talks and Panel Discussion-Life Long Learning
• 3:00PM BREAK
• 3:30PM Short Talk and Panel Discussion-Learning Health Systems and Successful Aging
• 5:00PM Poster Session
• 6:30PM DINNER (talk by Susan Graham)
THE PEOPLE WHO MADE THIS HAPPEN!

Vasant Honavar
Beth Mynatt
Ross Whittaker
Ann Drobnis
Khari Douglas
Limor Fix
Dan Lopresti
Klara Nahrstedt
Helen Wright
Sabrina Jacob
Tal Rabin
Cynthia Dwork
Liz Bradley
Andy Bernat
Sandra Corbett

Computing Research Addressing National Priorities and Societal Needs
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- 8:30AM Welcome and Introductions
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- 1:30PM Short Talks and Panel Discussion - Life Long Learning
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- 3:30PM Short Talk and Panel Discussion - Learning Health Systems and Successful Aging
- 5:00PM Poster Session
- 6:30PM DINNER
AGENDA DAY 2

- 8:30AM Welcome Day 2
- 8:35AM Keynote- Butler Lampson
- 9:20AM Short Talk and Panel Discussion- Controlling Our Data
- 10:30AM BREAK
- 10:50AM Short Talk and Panel Discussion- Privacy via Cryptography
- 12:05AM Short Talk- Privacy by Design
- 12:30PM LUNCH
- 1:30PM Keynote- Tom Kalil
- 2:15PM BREAK
- 2:45PM Short Talk and Panel Discussion- Partnerships for the Future
- 4:15PM Closing Remarks